John Harry MacMillan Ph.D.

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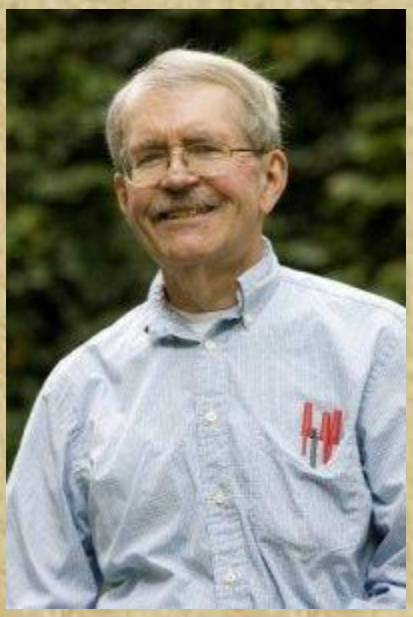

Below are listed in chronological order my complete list of links to chemistry abstracts, papers and patents. Download freely any material of interest.

1. Thomas R.P. Gibb Jr. and John H. MacMillan, "Line Broadening in the X-Ray Diffraction Patterns of the Vanadium Hydride System", Tufts University, Undergraduate Thesis, 1966.

FULL PAPER (Google Document)

PDF

---

2. Thomas R.P. Gibb Jr., J.H. MacMillan and R.J. Roy, "The Magnetic Susceptibility of Palladium Hydride", J. Phys. Chem., Vol. 70, p3024 (1966).

DOI: 10.1021/j100881a515

FULL PAPER (Google Document)

PDF

2a. Thomas R.P. Gibb Jr. and John H. MacMillan, "Magnetic Susceptibility Effects on Removal of Hydrogen from Beta Phase Palladium Hydride", Tufts University, Undergraduate Thesis, 1966.

FULL PAPER (Google Document) **COMPLETE THESIS (Google Document)**

---

3. Alfred Viola and John H. MacMillan, "Vapor Phase Thermolysis of 1-Hexen-5-yn-3-ol, An Acetylenic Oxy-Cope Reaction" J. Am. Chem. Soc., Vol. 90, p 6141, (1968).

DOI: 10.1021/ja01024a035

FULL PAPER (Google Document)

PDF

---

4. Alfred Viola and John H. MacMillan, "A Novel Steric Effect in the Thermolysis of Prop-2-ynyl Vinyl Carbinols" Chemical Communications p 301, (1970).

DOI: 10.1039/C29700000301

FULL PAPER (Google Document)

PDF

---

5. Alfred Viola and John H. MacMillan, "The Vapor Phase Acetylenic Oxy-Cope Reaction of 5-Hexen-1-yn-3-ol , The Chemistry of an Allenol Intermediate", J. Am. Chem. Soc., Vol. 92, p 2404, (1970).

DOI: 10.1021/ja00711a034

FULL PAPER (Google Document)

PDF

---

6. Alfred Viola and John H. MacMillan, "Addition of Grignard Reagents to Allylic and Propargylic Alcohols", J.H. MacMillan, Ph.D. Thesis, Northeastern University, 1970.

FULL PAPER (Google Document)

PDF

6a. John H. MacMillan and Alfred Viola,

"Addition of unsaturated propargyl, allyl and benzyl Grignard Reagents to acetylenic or allylic alcohols.", internet archive, 2012.

PDF

FULL PAPER (Google Document)

---

7. Alfred Viola and John H. MacMillan, " Investigation of Possible Phenyl Participation in the Oxy-Cope and Acetylenic Oxy-Cope Rearrangements" J.H. MacMillan, Ph.D. Thesis, Northeastern University, 1970.

PDF

FULL PAPER (Google Document)

---

8. "Triple Bond Participation in the Oxy-Cope Rearrangement", John H. MacMillan, Ph.D. Thesis, Northeastern University, 1970.

FULL PAPER (Google Document)

PDF (Scanned)

PDF (Retyped)

---

9. Alfred Viola and John H. MacMillan, "Vapor Phase Thermolysis of 1,5-Hexadiynes, Effect of Hydroxyl Substitution". Presented at the 159th National

Meeting of the American Chemical Society Houston Texas, February 1970, Abstract # ORGN 50.

Google Document (Abstract)

FULL PAPER (Google Document)

PDF

9a. John H. MacMillan and Alfred Viola "The Acetylenic-Oxy-Cope Rearrangement of 1,5-Hexadiyne-3-ol and Methyl Substituted Derivatives", Internet Archive, 2012.

Google Document **PDF**

---

10. Alfred Viola, John H. MacMillan, Robert J. Proverb and Brian L. Yates, "Participation of Acetylenic Bonds in Pericyclic Reactions, Thermal Cleavage of Beta-Hydroxyacetylenes", J. Am. Chem. Soc., Vol. 93, p 6967, (1971).

DOI: 10.1021/ja00754a046

FULL PAPER (Google Document)

PDF

---

11. Alfred Viola, John H. MacMillan, Robert J. Proverb and Brian L. Yates, "Reaction Rates by Flow System Thermolysis, The Competitive Components of the Oxy-Cope Reaction", Chemical Communications, p 936, (1971).

DOI: 10.1039/C29710000936

FULL PAPER(Google Document)

PDF

---

12. John H. MacMillan and Stephen S. Washburne, "Further Studies of the Interaction of Carbonyl Compounds with Organometallic Azides, the Novel Reaction of Benzoquinone with Trimethylsilyl Azide", Report of Investigators to the National Cancer Institute, 1972.

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PDF

---

13. John H. MacMillan and Stephen S. Washburne "Further Studies of the Interaction of Carbonyl Compounds with Organometallic Azides, the Reaction of Napthoquinones with Trimethylsilyl Azide",

Report of Investigators to the National Cancer Institute, 1972.

FULL PAPER (Google Document)

PDF

---

14. John H. MacMillan and Stephen S. Washburne "Further Studies of the Interaction of Carbonyl Compounds with Organometallic Azides, the Reaction of Acrylonitrile with Trimethylsilyl Azide".

Report of Investigators to the National Cancer Institute, 1973.

FULL PAPER (Google Document)

PDF

---

15. John H. MacMillan and Stephen S. Washburne, "Interaction of Carbonyl Compounds with Organometallic Azides Part V., Sorboyl Chloride and its Conversion to an Alpha-Pyridone", J. Org. Chem., Vol. 38, p 2982, (1973).

DOI: 10.1021/jo00957a013

FULL PAPER (Google Document)

PDF

---

16. John H. MacMillan and Stephen S. Washburne, "Lanthanide Chemical Shift Reagents as Tools for Determining Isomer Distributions in 2,4-Hexadieneoates and Related Compounds", Organic Magnetic Resonance, Vol. 6, p250, (1974).

DOI: 10.1002/mrc.1270060414

FULL PAPER (Google Document)

PDF

16a. Supplemental Unpublished Notebook Chemical Shift Data Supporting Paper 16 above.

FULL PAPER (Google Document)

---

17. John H. MacMillan, "Recent Examples of Selectivity in Catalysis", Strem Chemiker, Vol. 11 No. 2, July 1974.

FULL PAPER (Google Document) **FULL PAPER (Google Document, in Japanese)**

PDF

---

18. John H. MacMillan, Michael E. Strem, Fredrick A. Fowler and George Guy, "An Improved Method for the Preparation of Bis-DiphenylPhosphino Acetylene and unsymmetrical Aryl Substituted Diphenylphosphino Acetylenes", Strem Chemiker, Vol. 11, No. 2, July 1974.

FULL PAPER(Google Document)

PDF

---

19. James D. Warren, John H. MacMillan and Stephen S. Washburne, "Synthesis of Substituted 2H-1,3-Oxazine-2,6-Diones by Reaction of Trimethylsilyl Azide with Maleic Anhydrides", J.Org.Chem., Vol. 40, p 743, (1975).

DOI: 10.1021/jo00894a016

FULL PAPER (Google Document)

PDF

---

20. John H. MacMillan and Stephen S. Washburne, "Further Investigation of the Interaction of Trimethylsilyl Azide with Substituted Maleic Anhydrides, Synthesis of 4-and 5-Aryl Substituted 1,3(3H) Oxazine-2,6-Diones", J. Heterocyclic Chemistry, Vol. 12, p 1215, (1975).

DOI: 10.1002/jhet.5570120624

FULL PAPER (Google Document)

PDF

20a. Supplemental Additional 4-and 5-Aryl Substituted 1,3(3H) Oxazine-2,6-Diones

Google Document

PDF

Google Document (Link2)

---

21. Mark Lenhart, John H. MacMillan, Alice Maragliano and Steven S. Washburne, "A Facile General Synthesis of Aryl Maleic Anhydrides", Temple University, 1976. Presented at the 10th Middle Atlantic Regional Meeting of the American Chemical Society Philadelphia Pa. February, 1976, Paper 10, Undergraduate research.

FULL PAPER(Google Document)

PDF

---

22. John H. MacMillan and Stephen S. Washburne, "Hydrolysis reactions of the 4-and 5-Alkyl or Aryl Substituted 1,3(3H) Oxazine-2,6-Diones (Oxauracil) Ring System", Temple University, 1977, Report to the U.S. Army Medical Research and Development command; Grant Number DAMD 17-74-C4100.

FULL PAPER (Google Document)

PDF

---

23. John H. MacMillan, "Improved Procedure for the Preparation of "Oxauracil", 2H-1,3(3H)-Oxazine-2,6-Dione", Organic Preparations and Procedures Int. Vol 9, p 87, (1977).

DOI:

10.1080/00304947709355668

FULL PAPER (Google Document)

PDF

---

24. John H. MacMillan and Mortimer M. Labes, "Low Transition Temperature Liquid Crystalline Amines Incorporating the Trans-1,4-Cyclohexane Ring System", Molecular Crystals and Liquid Crystals, Vol. 55, p 61, (1979).

DOI:

10.1080/00268947908069791

FULL PAPER(Google Document)

PDF

---

25. John H. MacMillan and Mortimer M. Labes, "Induced Phases in Terminal Mixtures of Polar Liquid Crystalline Amines and Nitriles", Mol. Crystals and Liquid Crystals Letters, Vol. 56, p7, (1979).

DOI:

10.1080/01406567908070473

FULL PAPER (Google Document)

PDF

---

26. John H. MacMillan and Mortimer M. Labes, "Low Transition Temperature Liquid Crystalline Amines Incorporating the Biphenyl Ring System", Mol. Crystals and Liquid Crystals Letters, Vol. 56, p51, (1979).

DOI:

10.1080/01406567908071966

FULL PAPER (Google Document)

PDF

---

27. John H. MacMillan and Mortimer M. Labes, "Synthesis and Photochemistry of Chiral Liquid Crystalline Nitrones", Poster Session, Gordon Research Conference, Liquid Crystals Santa Barbara, California, January, 1980.

POSTER(Google Document) FULL PAPER(Google Document)

PDF

FULL PAPER, LINK 2 (Google Document)

---

28. Eugene R. Bertozzi and John H. MacMillan, "Hexamethylene Glycol Polyformal Copolymers for Insulating Glass and Building Sealants", Thiokol Corporation, Company Private, Sept 15, 1980.

FULL PAPER (Google Document)

PDF

---

29. John H. MacMillan and Mortimer M. Labes, "Amine Substituted Liquid Crystal Compositions", U.S. Patent #4,293,193, Oct. 6, 1981.

Google Document **Link**

PDF

---

30. John H. MacMillan, Eugene R. Bertozzi and Bruce E. Streeter, "One Package Heat Curable Sealant Compositions", U.S. Patent #4,430,489, Feb. 7, 1984.

Google Document **Link**

European Patent(Google Document) **Japanese Patent (Google Document)**

Canadian Patent(Google Document)

PDF

---

31. John H. MacMillan, Eugene R. Bertozzi and Bruce E. Streeter, "Thioether Modified Polymer Compositions", U.S. Patent #4,590,240, May 20, 1986.

Google Document **Link**

European Patent(Google Document)

PDF

---

32. "Is a Totally Constructivist Approach to the Teaching of High School Chemistry Possible in Practice?", John H. MacMillan Ph.D.

Beaver College, (Arcadia University), 1992.

Google Document

PDF

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33. "Virtual Chemistry Laboratory for Non-Science Majors, Good or Bad?", John H. MacMillan Ph.D.

Beaver College, (Arcadia University), 1995.

Google Document

PDF

---

34. John H. MacMillan, "Using Silanes as Adhesion Promoters", United Chemical Technologies Technical Workshop, 1997, Presented at the 214th Meeting of the American Chemical Society, Los Vegas, Nevada 1997, and the 215th Meeting of the American Chemical Society, Dallas ,Texas , 1998.

Google Document

PDF

---

35. John H. MacMillan,"Formulating Silicone Adhesives, Rubbers and Gels", United Chemical Technologies Technical Workshop, 1998.

Google Document

PDF

Presented at the 220th National Meeting of the American Chemical Society, Washington, D.C. 2000.

---

36. John H. MacMillan, "Silane Surface Modifying Reagents", United Chemical Technologies Technical Publication, 1998.

PDF

---

37. "PS200 Hydrophobic Coating", John H. MacMillan Ph.D. , United Chemical Technologies Technical Brochure, 2000.

Google Document

PDF

38."A method for derivatizing surfaces with aldehyde groups by employing a new alkoxy aldehydic silane", Coyne, Ann N., Benner, Lauren., MacMillan, John H., Telepchak, Michael J., United Chemical Technologies, technical publication, 2001.

Google Document **Google Document (link 2)**

PDF

---

39. John H. MacMillan, "Homogeneous Platinum Catalysts", United Chemical Technologies Technical Workshop, Presented at the 222nd Natioinal Meeting of the American Chemical Society, Chicago, Illinois, 2001.

Google Document

PDF

---

40. "Platinum Catalysts", John H. MacMillan, Technical Brochure, United Chemical Technologies, 2001.

Google Document

PDF File

---

41. Marzinke; Marla, (Ft. Washington, PA); MacMillan; John H., (Ambler, PA); August; Thomas F., (Glenolden, PA); Telepchak; Michael J., (Yardley, PA); "Method for the preparation of aminopropyl or aminoalkyl functional polyalkyl or aryl siloxanes".

United States Patent 6,177,583, January 23, 2001.

Google Document Link

PDF

---

42. Wayne King, John H. MacMillan and Michael J. Telepchak, "Siloxane modified carboxylic acid substituted amines and salts thereof", U.S. Patent 6,489,499, December 3, 2002.

Link Google Document

PDF

---

43. Ann N. Coyne, John H. MacMillan and Michael J. Telepchak, "Supported aldehydic silanes and method of manufacture", U.S. Patent 6,589,799, July 8, 2003.

Link Google Document

PDF

---

44. Ann N. Coyne, John H. MacMillan and Michael J. Telepchak, "Supported aldehydic silanes and method of manufacture", U.S. Patent 7,045,365, May 16, 2006.

Link Google Document

PDF

---

45. John H. MacMillan and Stephen S. Washburne," Oxidative dehydration of aryl substituted succinic acids with selenium dioxide; 4-Bromophenyl maleic anhydride".

DOI: http://dx.doi.org/10.1039/SP525

Chemspider, January 5, 2012

PDF

---

46. John H. MacMillan and Stephen S. Washburne, "Nitrogen insertion reaction of trimethylsilyl azide with aryl substituted maleic anhydrides, yielding aryl substituted 1,3(3H) oxazine-2,6-diones; 4-(4-bromophenyl)-1,3(3H) oxazine-2,6-dione".

DOI: http://dx.doi.org/10.1039/SP526

Chemspider January 16, 2012

PDF

---

47. John H. MacMillan and Stephen S. Washburne, "Oxazine-2,6-dione *N*-methylation with dimethyl sulfate; *N*-Methyl-4-(4-methylphenyl)-1,3(3H)-oxazine-2,6-dione".

DOI: http://dx.doi.org/10.1039/SP529

Chemspider January 16, 2012

PDF

---

48. John H. MacMillan and Alfred Viola, " Preparation of acetylenic alcohols by addition of propargyl Grignard reagents activated at low temperatures with mercury ion to a,ß-unsaturated aldehydes and ketones", Internet Archive, 2012.

PDF **Google Doc**

---

49. John H. MacMillan and Alfred Viola, "Addition of propargyl Grignard to aldehyde; 1-Phenyl-3-butyne-1-ol".

DOI: http://dx.doi.org/10.1039/SP537

Chemspider February 17, 2012

PDF

---

50. John H. MacMillan and Alfred Viola, "Addition of Allyl Magnesium Chloride to Propynal, 5-Hexen-1-yn-3-ol".

DOI: http://dx.doi.org/10.1039/SP579

PDF

Google Doc

Chemspider December 20, 2012

---

51. John H. MacMillan and Alfred Viola, "Allyl Grignard addition to the internal alkyne carbon of propargyl alcohol; 2-Methylene-4-penten-1-ol".

DOI: http://dx.doi.org/10.1039/SP596

Chemspider June 7, 2013

PDF

Google Doc

PDF (Ccl.net)

---

52. John H. MacMillan "Mnemonic use for aiding students to determine erythro vs threo stereochemistry in additions to internal alkenes”

Temple University, chemistry instructional aid, 2013.

Google Doc

-

PDF

PDF (ccl.net)

PDF (Homestead)

---

53. John H. MacMillan “Reagent Code Lists for Aiding Beginning Students in Determining the Structure of an Organic Chemistry Reaction Product.”

Temple University, chemistry instructional aid, 2013.

Google Document

PDF

PDF (Ccl.net)

PDF (Homestead)

---

54. John Harry MacMillan

Chemspider structure depositions, September-November 2013 (Homestead).

PDF (Ccl.net)

PDF (Internet archive), Introductory page

---

55. John H. MacMillan and Alfred Viola

"Mild Esterification with Diazomethane, Methyl-2E,4E-hexadienoate"

Chemspider November 13, 2013

DOI: 10.1039/SP701

Google Document

Homestead Archive

Ccl.net Archive

---

56. John H. MacMillan and Alfred Viola

"Reduced pressure oxidation of propargyl alcohol to aldehyde, Propynal"

November , 2013

Homestead archive

Internet Archive

Ccl.net Archive

---

57. John H. MacMillan and Alfred Viola

"Formation of 1-cyclopent-1-ylcarbinols from the reaction of excess allylmagnesium chloride with acetylenic alcohols"

(Google Archive, 2013)

Internet archive, 2013 (link)

Ccl.net Archive (link)

Homestead Archive (link)

---

58. John H. MacMillan

"Nitrogen insertion reaction of maleic anhydrides; 2-H-1,3-oxazine-2,6(3H)dione"

Chemspider, December 5, 2013

DOI 10.1039/SP707

Google Archive

Internet Archive

Ccl.net Archive

Homestead Archive

---

59. John H. MacMillan

" Reduction of a benzonitrile; 1-[4-trans-4-Pentylcyclohexyl)phenyl]methanamine"

DOI: 10.1039/SP708

Chemspider, December 17, 2013

Google Archive

PDF (Internet archive), Introductory page

PDF (Homestead Archive)

PDF (Ccl.net Archive)

---

60. John H. MacMillan

"Partial hydrolysis of a benzonitrile 4-(trans-4-Pentylcyclohexyl)benzamide"

DOI: 10.1039/SP710

Chemspider, January 6, 2014

Google Archive

PDF (Internet archive), Introductory page

PDF (Homestead Archive)

PDF (Ccl.net Archive)

---

61. John H. MacMillan

"Hoffman degradation of benzamides to carbamates"

Internet Archive, December 2013

Google Archive

PDF (Internet archive), Introductory page

PDF (Homestead Archive)

PDF (Ccl.net Archive)

---

62. John H. MacMillan

"Basic hydrolysis of methyl carbamates to amines"

Internet Archive, January 2014

Google Archive

PDF (Internet archive), Introductory page

PDF (Homestead Archive)

PDF (Ccl.net Archive)

---

63. John H. MacMillan

"Secondary amides from anilines: N-[4-(trans-4-Heptylcyclohexyl)phenyl]heptanamide"

Internet Archive, January 2014

Google Archive

PDF (Internet archive), Introductory page

PDF (Homestead Archive)

PDF (Ccl.net Archive)

---

64. John H. MacMillan

"Aromatic secondary amines from aromatic amides"

Internet Archive, January 2014

Google Archive

PDF (Internet archive), Introductory page

PDF (Homestead Archive)

PDF (Ccl.net Archive)

---

65. John H. MacMillan

"Borch synthesis of secondary amines from aromatic nitriles"

Internet Archive, January 2014

Google Archive

PDF (Internet archive), Introductory page

PDF (Homestead Archive)

PDF (Ccl.net Archive)

Papers Presented at Professional Meetings